IST 659 Lab 5 SQL II
Instructions

Business Case (this is the same case you have worked on for lab 4)

Business Case

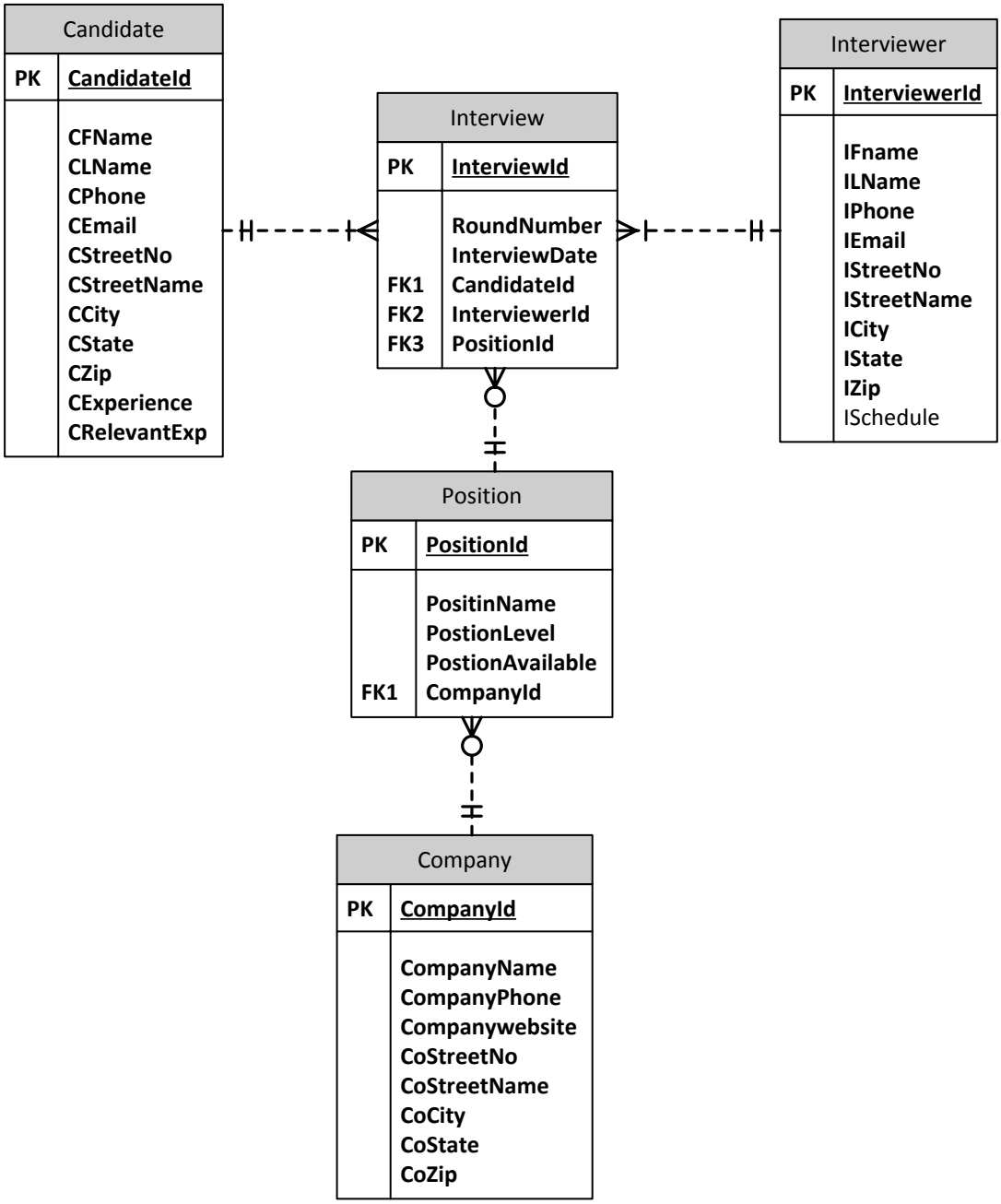
Career Services of our school wants to keep a track of all interviews (positions, candidates, company, and interviewer) that take place. They want to keep track of all the companies, the potential candidates, interviewer, positions available at companies etc. Sometimes the career services needs to contact the companies for verification or other inquiries. We need to build a database that would assist the career services in recording this information.

In this database system, each company and candidate will have their own profiles which include their names and contact information such as phone numbers, postal addresses. Candidates would need to provide information about their primary Experience domain, and relevant experience. Interviewers may or may not provide their office hour information. The schedule or office hour information should be a text describing when the interviewer's office is open, e.g. 9am-5pm Monday – Thursday.

An interviewer can conduct one or multiple interviews of candidates. A candidate can have one or more interviews. Each interview must have an interview date and round number along with information about the Candidate (CandidateId) and Interviewer (InterviewerId).

The database should also maintain information about the positions a company is looking to hire for. Details about position level, and position name should also be given. Information about whether the position is still available or not should also be stored in the database (this field will be either "yes" or "no").

In this lab we have already created the ERD model for the career services database (see below).



Lab 5 instruction

Imagine you are hired to design a new database to support this platform. In lab 4 you have created and populated the tables. Now you need to make a few changes to the table structure. You also need to write queries to answer some data questions. Please write SQL statements to finish the following tasks:

1. Alter table Candidate and Interviewer to add a column for the Candidate and Interviewer's Middle name initial. This column is optional.

2. Alter tables to let users input state abbreviate name instead of full name. For example, if state name is “New York”, change it to “NY”. Similarly, if state name is “California”, change it to “CA” and so on. Change all the tables that have the state column. (Candidate, Interviewer, Company). Also alter the data we inserted to fit this new datatype. Hint: if there are already data in these tables and the data do not conform to the new data type, you might need to remove the data before you can alter the table.

3. Simple data questions

   a) Find all Candidates who live in area having zip code “13225”. Show all columns.
   b) Find all Interviewers living on “Lancaster Ave”. Show Interviewer name, City and State.
   c) Update the table ‘Interview’, set date as ‘2013-09-28 00:00:00.000’ where interviewID is ‘1’. Find all interviews that took place on 28th day in the month of September, 2013. Show Interviewer ID and Position ID.
   d) Find all positions that are not available for level “Executive”. Show Position Name and position available only.
   e) Find all interviews that had rounds which exceeded 2. Show Interview ID, candidate id and Interview Date only.

4. Use aggregate functions to answer data questions
   a) Count the number of candidate in each zip code. Show the zip code and the number of candidates in each zip code.
   b) Sort interview table by number of the round number. Show interview ID and round number.
   c) Sort interview by interview date. Show interview ID, Interviewer ID and the interview date.
   d) For each candidate, calculate the average, min, and max round number of the interviews that this candidate had. Show CandidateId, average Round Number, min Round Number, and max Round Number.
   e) Find all candidates whose average round number of interviews is below 3 (i.e. average round number equals 1 or 2). Show the CandidateID and average round number.

Submission

Please submit your lab report in one doc or docx file named “lastname-firstname-lab5.doc(x)”. This lab report is due by **Tuesday, 03/08, 02:00pm.**

The lab report should follow the template in lab 4 solutions. After each question, copy and paste your SQL statement, followed by the screenshot to show that your SQL statement has been successfully executed. Both SQL statement and the result should be visible in the screenshot. Remember to add comments to your SQL statements to explain the purpose of the code blocks. Include Screen shots of the SQL Server Management Studio with your **username** which is there at the bottom right hand corner.